

## Stellenbosch University - Centre for Renewable and Sustainable Energy Studies

### 2 x Postdoctoral Research Fellowships: Biohydrogen and bioenergy from organic waste

**Host:** Centre for Renewable and Sustainable Energy Studies

**Value of Award:** Competitive tax-free fellowship

**Duration:** 1 year, renewable upon sufficient funding

We seek passionate, highly driven and organised postdoctoral fellows to join our multidisciplinary team at the Centre for Renewable and Sustainable Energy Studies.

The Centre for Renewable and Sustainable Energy Studies (CRSES) at Stellenbosch University drives Africa towards sustainability with its world-class research, advisory services, awareness campaigns, and training programs in renewable and sustainable energy. The postdoctoral fellows will focus on conducting scientific research in fields related to bioenergy and biohydrogen production from organic waste. The successful applicants will thrive in a vibrant, diverse research team, with collaborations spanning nationally, across Africa, and internationally, and ample opportunities for further training.

The appointed candidates will be required to publish their research results in high-impact journals and present at local and international conferences. They will also provide limited mentoring and supervision to postgraduate students. Moreover, they will actively shape the CRSES research agenda by writing research and grant proposals and collaborating with industry experts to ensure alignment with industry needs.

The fellowship is available for one year, renewable for up to three years, subject to satisfactory performance and funding availability. Please note that postdoctoral fellows are not appointed as SU employees and, therefore, are not eligible for employee benefits. Postdoctoral fellowships are also awarded tax-free.

**Hosts:**

- Prof Cristina Trois, Centre for Renewable and Sustainable Energy Studies
- Prof Prathieka Naidoo, Department of Chemical Engineering and Sasol-NRF Research Chair (SARChi) in Green Hydrogen

**Requirements:**

- PhD in relevant field (must have graduated within the last five years)
- Excellent communication skills in English (both written and verbal)
- A proven publication record in high-impact journals and a demonstrated capacity to conduct independent research (minimum one relevant published article in a Scimago Q1 or Q2 journal)
- A good understanding of bioenergy, biohydrogen, or waste-to-energy technologies
- Proficiency in using bioreactors, anaerobic digestion processes, and other relevant laboratory techniques

**Specific areas of potential research include:**

- Biohydrogen production techniques and bioreactor optimisation for efficient biohydrogen production
- Waste valorisation and conversion into bioenergy, focusing on sustainability and economic viability
- Assessment of the environmental benefits and challenges of biohydrogen production from waste, including greenhouse gas emissions reduction
- Economic and cost-benefit analysis of biohydrogen production processes to determine their feasibility and scalability

**Commencement of duties:** As soon as available.

**Closing date:** Open.

**Application process:** Send a letter of application, accompanied by a comprehensive curriculum vitae, including list of publications, proof of PhD qualification, and the names and contact details of two referees, to Prof Cristina Trois at [cristinatrois@sun.ac.za](mailto:cristinatrois@sun.ac.za).